



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/881,609

06/14/2001

Leo Mark Pedlow JR.

50P3990.01

6398

22242

7590

08/22/2006

FITCH EVEN TABIN AND FLANNERY
120 SOUTH LA SALLE STREET
SUITE 1600
CHICAGO, IL 60603-3406

EXAMINER

SHELEHEDA, JAMES R

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,609

Applicant(s)

PEDLOW, LEO MARK

Examiner

James Sheleheda

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 2, 3 and 4 are objected to because of the following informalities:

In claim 2, line 1, "to prevent" should be changed to --prevents--.

In claim 3, line 2, "to transmit" should be changed to --transmits--.

In claim 4, lines 1 and 2, "to determine" should be changed to --determines--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-12 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Payton (5,790,935).

As to claim 1, Payton discloses a video on demand system (Fig. 2; column 4, lines 8-44), comprising:

a transmission channel (over digital transport system, 26; Fig. 2; column 4, lines 45-64);

a plurality of receivers coupled to the transmission channel (local servers, 28 for each subscriber; Fig. 2; column 4, lines 45-54), a VOD client at each receiver capable of

subscribing to one or more VOD sessions over a transport stream (column 6, lines 20-36 and column 7, lines 13-35);

a headend (24) coupled to the transmission channel (Fig. 2), said headend including a video server that can transmit one or more VOD session to one or more receivers (column 4, line 55-column 5, line 5 and column 7, lines 13-35), and a control server coupled to the video server (scheduling processor; 46; Fig. 2), the control server to dynamically allocate and terminate VOD sessions over the transport stream as VOD clients are added and terminated (transmitting VOD movies as they are requested by the subscribers; column 7, lines 12-35 and column 5, lines 31-45), and, if necessary, to cause the video server to transmit one or more dummy sessions over the transport stream (transmitting content which has not been requested, but is recommended for some subscribers; column 5, lines 6-31 and column 7, lines 36-47) to maintain a predetermined minimum bandwidth of content over the transport stream (column 7, lines 36-60).

As to claim 2, Payton discloses wherein the control server will prevent each receiver from decoding the dummy sessions (wherein the stored content is encrypted to prevent unauthorized access; column 4, lines 64-66).

As to claim 3, Payton discloses wherein the control server will, If necessary, transmit one or more dummy sessions over the transport stream to maintain a minimum bandwidth of content over the transport stream (column 5, lines 6-31 and column 7,

Art Unit: 2623

lines 36-60) to ensure that each receiver can synchronize to a subscribed VOD session (ensuring that every subscriber can receive, and thus synchronize, with their MPGE movie by ensuring that recommended ones are transmitted in advance; column 3, lines 34-42 and column 4, lines 59-64).

As to claim 4, Payton discloses wherein the control server is configured to determine whether the bandwidth of content over the transport stream is below a predetermined threshold (wherein it is determined that the used bandwidth is low enough to allow the transport of additional VOD content; column 7, lines 36-47) and to cause the video server to transmit one or more dummy sessions, as necessary, to maintain the bandwidth of content at the predetermined threshold (wherein the utilized bandwidth level falls low enough to allow the transport of additional content, the available content is then utilized to transport a recommended movie; column 7, lines 36-60 and column 5, lines 22-31).

As to claim 5, Payton discloses wherein each receiver includes a demodulator (inherently present to allow the set top box to receive the broadcast cable and satellite signals, which are modulated onto carrier signals; Fig. 2; column 4, lines 23-34), decoder (60, converting the MPEG video for display; column 6, lines 11-19 and column 4, lines 59-64) and an MPEG frame synchronizer (inherently present, as this is required for the decoder to synchronize with the MPEG stream and properly identify the start of

the MPEG packets, through a sliding checksum; column 6, lines 11-19 and column 4, lines 59-64).

As to claim 6, Payton discloses wherein said headend includes a transmitter (Fig. 2; inherently present to transmit the content) having an MPEG frame synchronizer (inherently present, as this is required for the encoder to provide a stable stream of video to the encoder; column 6, lines 11-19 and column 4, lines 59-64), encoder (inherently present to have encoded the MPEG video; column 4, lines 59-64) and modulator (inherently present to allow the system to distribute the television signals; column 5, lines 55-67).

As to claim 7, Payton discloses wherein the transport stream is over a radio frequency channel (Fig. 2; satellite broadcast).

As to claim 8, Payton discloses wherein the video server can transmit one or more VOD sessions over one or more RF channels each associated with a transport stream (Fig. 2; broadcast satellite or cable channels; column 4, lines 7-22 and column 8, lines 11-15) and wherein said control server, if necessary, to cause the video server to transmit one or more dummy sessions over each transport stream, as necessary, to maintain a predetermined minimum bandwidth of content, over each of the one or more transport streams (transmitting content which has not been requested, but is recommended for some subscribers; column 5, lines 6-31 and column 7, lines 36-47).

As to claim 9, Payton discloses wherein the control server receives a request for a new VOD session from a VOD client (column 7, lines 12-35 and column 5, lines 31-45), the control server terminates one or more of the one or more dummy sessions (wherein the refresh queue item is transmitted and removed from the queue; column 7, lines 36-60 and Fig. 3c), and causes transmission of the new VOD session over the transport stream (wherein the system will then send the next on-demand item when the bandwidth becomes available; column 7, lines 36-60 and Fig. 3c).

As to claim 10, Payton discloses a video on demand server (24, Fig. 2; column 4, lines 8-44), comprising: a server that receives request from one or more VOD clients for one or more VOD sessions (transmitting VOD movies as they are requested by the subscribers; column 7, lines 12-35 and column 5, lines 31-45), causes transmission of one or more VOD sessions over a transport stream to one or more VOD clients (transmitting VOD movies as they are requested by the subscribers; column 7, lines 12-35 and column 5, lines 31-45), determines whether the number of VOD sessions transmitted over the transport stream is below a minimum threshold (determining less VOD movies are being transmitted then is possible; column 7, lines 36-60), and causes transmission of one or more padding sessions over the transport stream if the number of VOD sessions transmitted over the transport stream is below the minimum threshold to maintain the number of VOD sessions at or above the minimum threshold (transmitting content which has not been requested, but is recommended for some

subscribers, whenever it is detected that enough bandwidth for another movie is available; column 5, lines 6-31 and column 7, lines 36-47).

As to claim 11, Payton discloses wherein the video server causes transmission of VOD sessions over a plurality of RF channels each associated with a transport stream (Fig. 2; broadcast satellite or cable channels; column 4, lines 7-22 and column 8, lines 11-15), the server determines, for each transport stream whether the number of VOD sessions is below the minimum threshold (transmitting content which has not been requested, but is recommended for some subscribers, whenever it is detected that enough bandwidth for another movie is available; column 5, lines 6-31 and column 7, lines 36-47), and, for each transport stream, causes transmission of one or more padding sessions if the number of VOD sessions transmitted over the respective transport stream is below the minimum threshold to maintain the number of VOD sessions at or above the minimum threshold (transmitting content which has not been requested, but is recommended for some subscribers, whenever it is detected that enough bandwidth for another movie is available; column 5, lines 6-31 and column 7, lines 36-47).

As to claim 12, Payton discloses wherein the control server receives a request for a new VOD session from a VOD client (column 7, lines 12-35 and column 5, lines 31-45), the control server terminates one or more of the one or more padding sessions (wherein the refresh queue item is transmitted and removed from the queue; column 7,

lines 36-60 and Fig. 3c), and causes transmission of the new VOD session (wherein the system will then send the next on-demand item when the bandwidth becomes available; column 7, lines 36-60 and Fig. 3c).

As to claim 20, Payton discloses a digital video system (Fig. 2; column 4, lines 8-44), comprising:

- a transmission channel (over digital transport system, 26; Fig. 2; column 4, lines 45-64);

- a plurality of receivers coupled to the transmission channel (local servers, 28 for each subscriber; Fig. 2; column 4, lines 45-54), a client at each receiver capable of subscribing to one or more VOD sessions over a transport stream (column 6, lines 20-36 and column 7, lines 13-35);

- a headend (24) coupled to the transmission channel (Fig. 2), said headend including a video server that can transmit one or more video sessions to one or more receivers (column 4, line 55-column 5, line 5 and column 7, lines 13-35), and a control server coupled to the video server (scheduling processor; 46; Fig. 2), the control server to cause the video server to transmit one or more dummy sessions over the transport stream (transmitting content which has not been requested, but is recommended for some subscribers; column 5, lines 6-31 and column 7, lines 36-47) to maintain a predetermined minimum bandwidth of content over the transport stream (column 7, lines 36-60).

As to claim 21, Payton discloses wherein the control server is configured to determine whether the bandwidth of content over the transport stream is below a predetermined threshold (wherein it is determined that the used bandwidth is low enough to allow the transport of additional VOD content; column 7, lines 36-47) and to cause the video server to transmit one or more dummy sessions, as necessary, to maintain the bandwidth of content at the predetermined threshold (wherein the utilized bandwidth level falls low enough to allow the transport of additional content, the available content is then utilized to transport a recommended movie; column 7, lines 36-60 and column 5, lines 22-31).

As to claim 22, Payton discloses wherein the headend transmits digital video programming in accordance to one of a digital broadcast satellite system (Fig. 2; column 5, lines 55-67), digital cable system (column 5, lines 55-67) and video-on-demand system (column 4, lines 8-22).

Response to Arguments

4. Applicant's arguments filed 7/12/06 have been fully considered but they are not persuasive.

a. On pages 6 and 7, applicant states that Payton does not disclose "dummy sessions", and specifically that non-requested content is not a "dummy session".

In response, Payton discloses transmitting content in two distinct fashions. The first is comprised of VOD sessions consisting of movies specifically

requested by viewers (column 7, lines 13-35). The second is comprised of transmitting content which has not been requested by subscribers, but may be desired in the future (column 5, lines 6-21). This content only transmitted when bandwidth is available and there are no pending subscriber requests (see Fig. 3c and column 7, lines 36-47). Thus, as the non-requested content of Payton is not directed towards any specific user, and only transmitted to use extra bandwidth when user requests are not pending, it clearly reads upon the broad limitation of a "dummy session".

Furthermore, it is noted that applicant has provided no actual arguments as to why Payton's non-requested content would not qualify as a "dummy session". Payton clearly reads upon this broad language.

b. On page 7, applicant argues that the recommended content of Payton is not transmitted to maintain a minimum bandwidth of content, and is specifically transmitted during off-peak times.

In response, Payton specifically discloses wherein the system will monitor the bandwidth and transmit the recommended content if it is detected that enough bandwidth is available for another item to be transmitted (column 7, lines 36-41) and if the on-demand queue is empty (signifying that there is no pending request for user content; column 5, lines 31-36 and column 7, lines 36-50). The recommended content is utilized to ensure that the bandwidth of content does not fall below the level that there is bandwidth wasted. Thus, the "minimum

bandwidth” of Payton is the level at which no more items may be transmitted.

Applicant’s argument is therefore not persuasive.

c. On page 7, applicant argues that the recommended content is transmitted in response to a specific request.

In response, Payton specifically discloses wherein the recommended content is *not* based upon user request (column 5, lines 6-21). The recommended content list is created to predict content users are likely to desire in the future (column 3, lines 34-42 and column 5, lines 6-21). This prediction is performed to reduce the number of on-demand requests which must then be serviced (column 3, lines 34-42). Thus, applicant’s argument is not convincing.

d. On page 7, applicant argues that if the load on the “on-demand queue” is low, Payton’s system will **only** cause an increase in the menu selection available to the subscribers, and does not transfer any new content.

In response, Payton specifically discloses wherein the system will transmit non-requested content from the “refresh queue” if bandwidth is available and there are no items in the “on-demand queue” (Fig. 3c, steps 86, 88 and 90, and column 7, lines 36-50). Thus, applicant’s argument is clearly incorrect. While Payton does disclose wherein the system may *also* cause an increase in the menu selection available (column 7, lines 56-60 and Fig. 3c, steps 104 and 406), Payton does not disclose wherein the system would be limited to just this action.

e. On page 7, applicant argues that Payton teaches away from creating additional dummy sessions which would further limit the bandwidth available for transferring requested items.

In response, Payton specifically discloses transferring recommended items (as the dummy sessions) in order to **overcome** the bandwidth limitations of the system (column 3, lines 34-42 and column 4, lines 7-22). By allowing the system to transmit content which is expected to be requested, in advance, *whenever bandwidth is available*, the system reduces the number of requests which must be serviced on-demand (column 4, lines 16-22). Thus applicant's arguments are not convincing.

f. In response to applicant's arguments on page 7, in regards to claims 10 and 20, see (a)-(e) above.

g. In response to applicant's arguments on page 8, in regards to claim 2, see (a)-(e) above in regards to how Payton discloses "dummy sessions".

h. In response to applicant's arguments on page 8, in regards to claim 3, Payton specifically discloses wherein the recommended content is transmitted whenever bandwidth is available to reduce the load on the system (column 3, lines 34-42 and column 4, lines 9-44). Thus, the system ensures that each user

can request and receive desired content (column 4, lines 23-44) even when the central server does not support enough capacity to provide content for each on-demand request (column 4, lines 23-44).

i. In response to applicant's arguments on page 8, in regards to claim 4, see (a)-(h) above.

j. In response to applicant's arguments on pages 8 and 9, in regards to claim 5, Payton discloses wherein the digital content is to be stored in MPEP form to *improve* storage and transport efficiency (column 4, lines 55-64). Thus, the digital content is encoded into MPEG, as the central server is improving the storage efficiency of the digital content by encoding it into MPEG.

k. In response to applicant's arguments on page 9, in regards to claims , 12 and 21, see (a)-(i) above.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2623

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on _____.
(Date)

Typed or printed name of person signing this certificate:

Signature: _____

Art Unit: 2623

Registration Number: _____

Certificate of Transmission

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. () _____ - _____ on _____.
(Date)

Typed or printed name of person signing this certificate:

Signature: _____

Registration Number: _____

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (571) 272-7357. The examiner can normally be reached on 9:00-5:30.

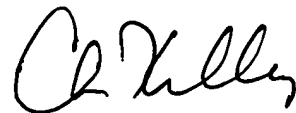
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Sheleheda
Patent Examiner
Art Unit 2623

JS



CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600